San Francisco 250-550

This looseleaf Atlas is one prototype product of experiments in land use change detection using remote sensors on aircraft and Earth-orbiting satellites. Sensor data and census data are being compared for a sample of urban test sites. These efforts are parts of Department of the Interior's Earth Resources Observations System (EROS) Program and National Aeronautics Space Administration's Earth Observations program. Photography for change detection by NASA, 1970, 1971, and 1972. Photogrammetry, cartography, and computer operations by divisions of U.S. Geological Survey. Analysis and applications development by Geo-

Thousands of Feet

Statute Miles

Declination Diagram

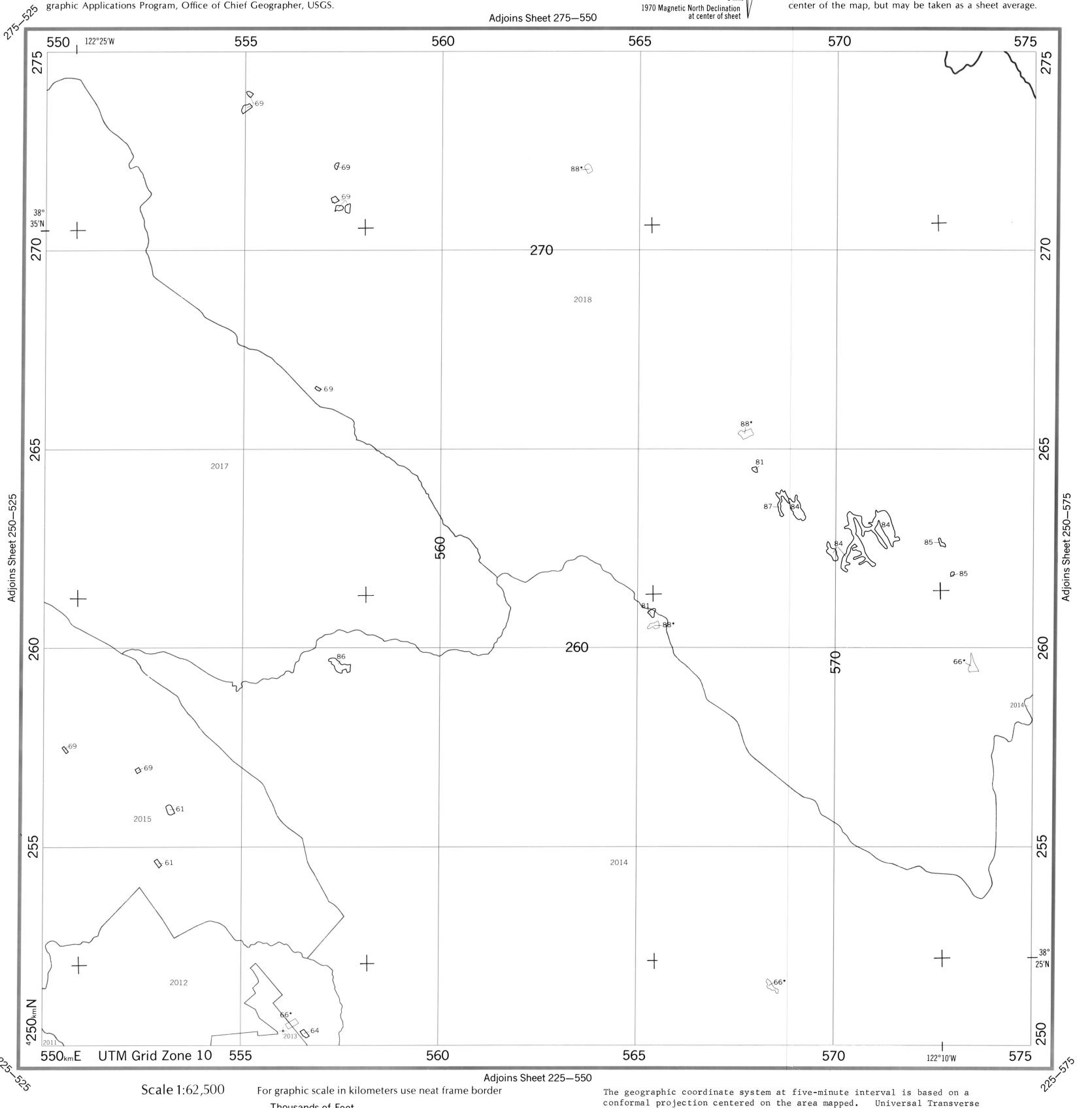
Mercator (UTM) coordinate system is shown with grid interval of five

kilometers. This grid forms the basis for sheetlines, sheet numbering, and location control for computer mapping. The map is based on an

orthophoto mosaic made from high altitude aircraft photography acquired by U.S. Geological Survey, May 1970. Mosaic, projection and control

by USGS.

There are three Norths on this map. The vertical grid lines represent Grid North. A meridian line connecting grid ticks represents True North, according to the map projection. Grid North and Magnetic North decline from True North as shown in the diagram. These values are for the center of the map, but may be taken as a sheet average.



San Francisco **250-550/**₂₅

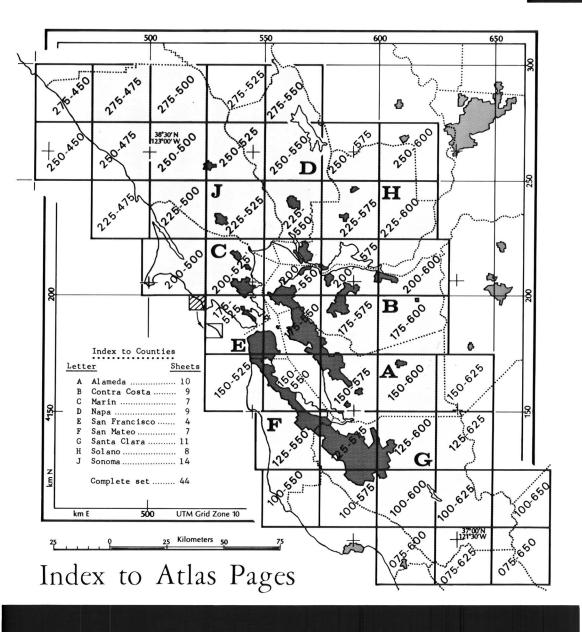
This experimental map series shows changes in land use from 1970 to 1972 in the nine-county San Francisco Bay Region. Land use and change for areas 10 acres and larger are derived primarily by interpretation of high-altitude color infrared photography. A limited field check also has been made. Sensor data and census data are aggregated by census tract, by county, by region, and by urban area, 1970 and 1972. The latter uses visible land use boundaries so that changes occurring between census years can be monitored using remote sensors aboard aircraft and/or satellite. The land use maps and data augment Earth science materials from the San Francisco Bay Region Environment and Resources Planning Study, a joint effort by USGS and U.S. Department of Housing and Urban Development. Inquiries and suggestions may be addressed to Director, U.S. Geological Survey, Reston, Virginia, 22092.

County boundary		
Census tract boundary		***************************************
Census tract centroid and number	356	60
Boundary of Urban Area, 1970, based on land use		
Boundary of Urban Area added between 1970 and 1972		
	From	-To
Commercial, Public and Private Services	0	0
Industrial, Extractive	1	1
Transportation	2	2
Multi-Family Residence	3	3
Single-Family Residence	4	4
Strip and Cluster Development	5	5
1-1-1		
Agriculture (Cropland and Pasture, Orchards, Groves)	6	6
Improved Open Space	7	7
Unimproved Open Space	8	8
Water	9	9
Change polygons are identified by a two-digit number digit identifies the land use in 1970 and the second		

land use in 1972. For example, a change polygon coded 64 means

that the land use changed from Agriculture (6) in 1970 to Single-Family Residence (4) in 1972. Land use in transition

is shown by an asterisk (*) following the use code.



San Francisco 250-550